

Listing of Claims

1. (Currently Amended) An initial synchronizing method of a mobile communication system, comprising:

- (a) dividing synchronous code data into a first part and a second part;
- (b) dividing baseband data into a first part and a second part;
- (c) generating a first correlation value based on multiplication of only one of the first part of the baseband data and the first part of the synchronous code data, or the second part of the baseband data and the second part of the synchronous code data;
- (d) detecting whether the first correlation value is greater than a preset threshold value; ~~and~~
- (e) determining a synchronous position based on (d) if the first correlation value is greater than the preset threshold value; and
- (f) synchronizing a mobile station and base station based on the synchronous position determined in (e), wherein the mobile station performs initial cell retrieval using a single filter based on the synchronization obtained in (f).

2. (Previously Presented) The method of claim 1, wherein if the first correlation value is greater than the preset threshold value, then:

reading additional baseband data and synchronous code data;

performing (a)-(c) for the additional baseband and synchronous code data;

determining whether a second correlation value generated based on the additional baseband and synchronous code data is greater than the present threshold value;
determining which of the first or second correlation values is a maximum value; and
determining a baseband data position based on the maximum correlation value, the synchronous position corresponding to or being based on the baseband data position.

3. (Previously Presented) The method of claim 1, wherein, in (c), the first correlation value is generated based on multiplication of the first part of the baseband data and the first part of the synchronous code data, the first parts corresponding to real number units of the baseband data and the synchronous code data.

4. (Canceled)

5. (Canceled)

6. (Currently Amended) An initial synchronizing method of a mobile communication system, comprising:

extracting baseband data by dividing it into ~~a certain~~ block units
generating a correlation value based on the extracted baseband data and synchronous code data;

detecting whether the correlation value is greater than a preset threshold value;

if the correlation value is greater than the preset threshold value, then multiplying
adjacent previous/next data which either precedes or follows of the extracted detected baseband
data by only a real number unit of the synchronous code data; and

determining a synchronous position based on a result of said multiplication,
wherein a mobile station and base station are synchronized based on said synchronous position,
the mobile station performing initial cell retrieval using a single filter based on said
synchronization.

7-10 (Canceled)